**SERVICE MANUAL** (Basic Information)

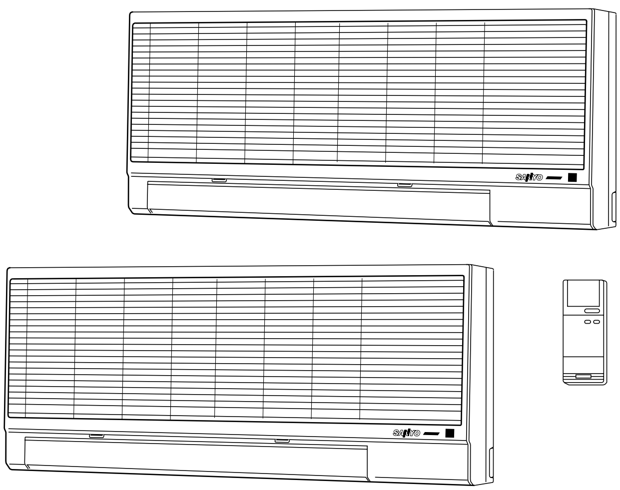
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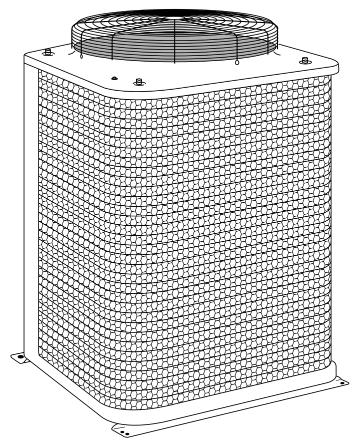
# CM3212 / KMS0712(×2)+KMS1812

# SPLIT SYSTEM AIR CONDITIONER

Indoor Unit

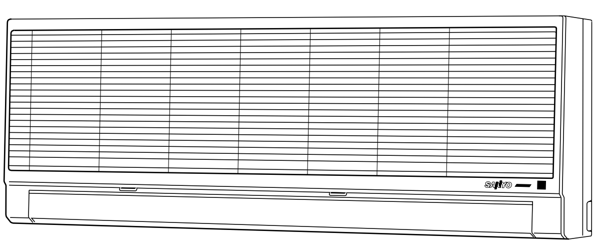
Outdoor Unit

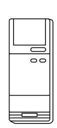




CM3212

KMS0712





KMS1812

8526481017300

REFERENCE NO. WM−700699

Ⓦ

# SERVICE MANUAL

## CM3212 / KMS0712($\times$2)+KMS1812

## (Basic Information)

# IMPORTANT!
# Please Read Before Starting

This air conditioning system meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

**For safe installation and trouble-free operation, you must:**

- Carefully read this instruction booklet before beginning
- Follow each installation or repair step exactly as shown
- Observe all local, state, and national electrical codes
- Pay close attention to all danger, warning, and caution notices given in this manual

**DANGER:** This symbol warns of an immediate hazard which will result in severe personal injury or death.

**WARNING:** This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

**CAUTION:** This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

### If Necessary, Get Help

These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.

### In Case of Improper Installation

The manufacturer shall in no way be responsible for improper installation or maintenance service, including failure to follow the instructions in this document.

## SPECIAL PRECAUTIONS

### When Wiring

**ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIAN SHOULD ATTEMPT TO WIRE THIS SYSTEM.**

- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause **accidental injury or death.**
- **Ground the unit** following local electrical codes.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.

### When Transporting

Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your fingers.

### When Installing…

**…In a Ceiling or Wall**
Make sure the ceiling/wall is strong enough to hold the unit's weight. It may be necessary to construct a strong wood or metal frame to provide added support.

**…In a Room**
Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to walls and floors.

**…In Moist or Uneven Locations**
Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the outdoor unit. This prevents water damage and abnormal vibration.

**…In an Area with High Winds**
Securely anchor unit down with bolts and metal frame. Provide a suitable air baffle.

**…In a Snowy Area (for Heat Pump-type Systems)**
Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

### When Connecting Refrigerant Tubing

- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Apply refrigerant lubricant to the matching surfaces of the flare and union tubes before connecting them, then tighten the nut with a torque wrench for a leak-free connection.
- Check carefully for leaks before starting the test run.

**NOTE:**
Depending on the system type, liquid and gas lines may be either narrow or wide. Therefore, to avoid confusion the refrigerant tubing for your particular model is specified as either "narrow" or "wide" rather than as "liquid" or "gas."

### When Servicing

- Turn the power OFF at the main power box (mains) before opening the unit to check or repair electrical parts.
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no scraps or bits of wiring have been left inside the unit being serviced.

# Table of Contents

# 1. OPERATING RANGE

**CM3212 / KMS0712(×2)+KMS1812**

| Temperature | Indoor Air Intake Temp. | Outdoor Air Intake Temp. |
|---|---|---|
| Maximum | 95°F DB / 71°F WB | 115°F DB |
| Minimum | 67°F DB / 57°F WB | 67°F DB |

# 2. SPECIFICATIONS

## Unit Specifications

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model No. | Outdoor unit | | CM3212 | | | | |
| | Applicable indoor unit | | KMS0712, KMS1812 | | | | |
| Performance | | | Cooling | | | | |
| | No. of indoor units | | 1 unit – A | 1 unit – B | 2 units – A + A | 2 units – A + B | 3 units – A + A + B |
| | Capacity | BTU/h | 7,000 / 7,000 | 18,000 / 18,000 | 14,000 / 14,000 | 25,000 / 25,000 | 32,000 / 32,000 |
| | | kW | 2.05 / 2.05 | 5.27 / 5.27 | 4.10 / 4.10 | 7.33 / 7.33 | 9.38 / 9.38 |
| Electrical Rating | Phase, Frequency | Hz | Single, 60 | Single, 60 | Single, 60 | Single, 60 | Single, 60 |
| | Voltage rating | V | 230 / 208 | 230 / 208 | 230 / 208 | 230 / 208 | 230 / 208 |
| | Available voltage range | V | 187 to 253 | 187 to 253 | 187 to 253 | 187 to 253 | 187 to 253 |
| | Running amperes | A | 3.3 / 3.5 | 8.9 / 9.5 | 6.7 / 7.2 | 11.8 / 12.6 | 15.0 / 16.0 |
| | Power input | W | 750 / 720 | 2,000 / 1,950 | 1,540 / 1,490 | 2,700 / 2,600 | 3,400 / 3,300 |
| | Power factor | % | 99 / 99 | 99 / 99 | 99 / 99 | 99 / 99 | 99 / 99 |
| | Starting amperes | A | 24 | 56 | 24 × 2 | 24 + 56 | 24 × 2 + 56 |
| | S. E. E. R. | BTU/Wh | 10.0 / 10.0 | 10.0 / 10.0 | 10.0 / 10.0 | 10.0 / 10.0 | 10.0 / 10.0 |
| Features | Fan speeds | | Automatic (2) | | | | |
| | Compressor … number | | Rotary, 500 W … 2 / 1,400 W … 1 | | | | |
| | Refrigerant amount charged at shipment | lbs. (kg) | R-22: 1.83 × 2 (0.83 × 2) / 4.14 (1.88) | | | | |
| | Refrigerant control | | Capillary tube | | | | |
| | Operation sound (Outdoor unit) | dB-A | 62 | | | | |
| | Refrigerant tubing connections | | Flare type | | | | |
| | Max. allowable tubing length at shipment | ft. (m) | 33 (10) | | | | |
| | Limit of tubing length | ft. (m) | 7,000 BTU: 50 (15) / 18,000 BTU: 65 (20) | | | | |
| | Limit of elevation difference between the 2 units | ft. (m) | 23 (7) | | | | |
| | Refrigerant tube o.d. — Narrow tube | in. (mm) | 1/4 (6.35) | | | | |
| | Refrigerant tube o.d. — Wide tube | in. (mm) | 7,000 BTU: 3/8 (9.52) / 18,000 BTU: 1/2 (12.7) | | | | |
| | Refrigerant tube kit | | Optional | | | | |
| Dimensions & Weight | Height | in. (mm) | 32-1/16 (815) | | | | |
| | Width | in. (mm) | 26-3/8 (670) | | | | |
| | Depth | in. (mm) | 26-3/8 (670) | | | | |
| | Net weight | lbs. (kg) | 220 (99) | | | | |
| | Shipping volume | cu. ft. (cu. m) | 19.5 (0.552) | | | | |
| | Shipping weight (Approx.) | lbs. (kg) | 242 (110) | | | | |

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

## Applicable Indoor Unit

| | | | | |
|---|---|---|---|---|
| Model No. | | | | KMS0712 |
| Type | | | | Wall-mounted |
| Performance | | | | Cooling |
| | Capacity | | BTU/h | 7,000 / 7,700 |
| | | | kW | 2.05 / 2.05 |
| | Air circulation (High) | | cu. ft./min. | 220 / 210 |
| | Moisture removal (High) | | pints/h | 2.2 / 2.1 |
| Electrical Rating | Phase, Frequency | | Hz | Single, 60 |
| | Voltage rating | | V | 230 / 208 |
| | Available voltage range | | V | 187 to 253 |
| Features | Controls | | | Microprocessor |
| | Control unit | | | Wireless remote control unit |
| | Temperature control | | | IC thermostat |
| | Timer | | | ON/OFF 24-hours & Program |
| | Fan speeds | | | 3 |
| | Air deflector | | Horizontal / Vertical | Manual / Manual |
| | Air filter | | | Washable, easy access |
| | Operation sound | Hi / Me / Lo | dB-A | 45 / 35 / 30 |
| | Refrigerant tubing connections | | | Flare type |
| | Refrigerant tube o.d. | Narrow tube | in. (mm) | 1/4 (6.35) |
| | | Wide tube | in. (mm) | 3/8 (9.52) |
| | Refrigerant tube kit | | | Optional |
| | Accessories | | | Hanging wall bracket |
| Dimensions & Weight | Height | | in. (mm) | 13-19/32 (345) |
| | Width | | in. (mm) | 31-1/2 (800) |
| | Depth | | in. (mm) | 7-3/32 (180) |
| | Net weight | | lbs. (kg) | 24 (11) |
| | Shipping volume | | cu. ft. (cu. m) | 3.3 (0.093) |
| | Shipping weight | | lbs. (kg) | 29 (13) |

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

## Applicable Indoor Unit

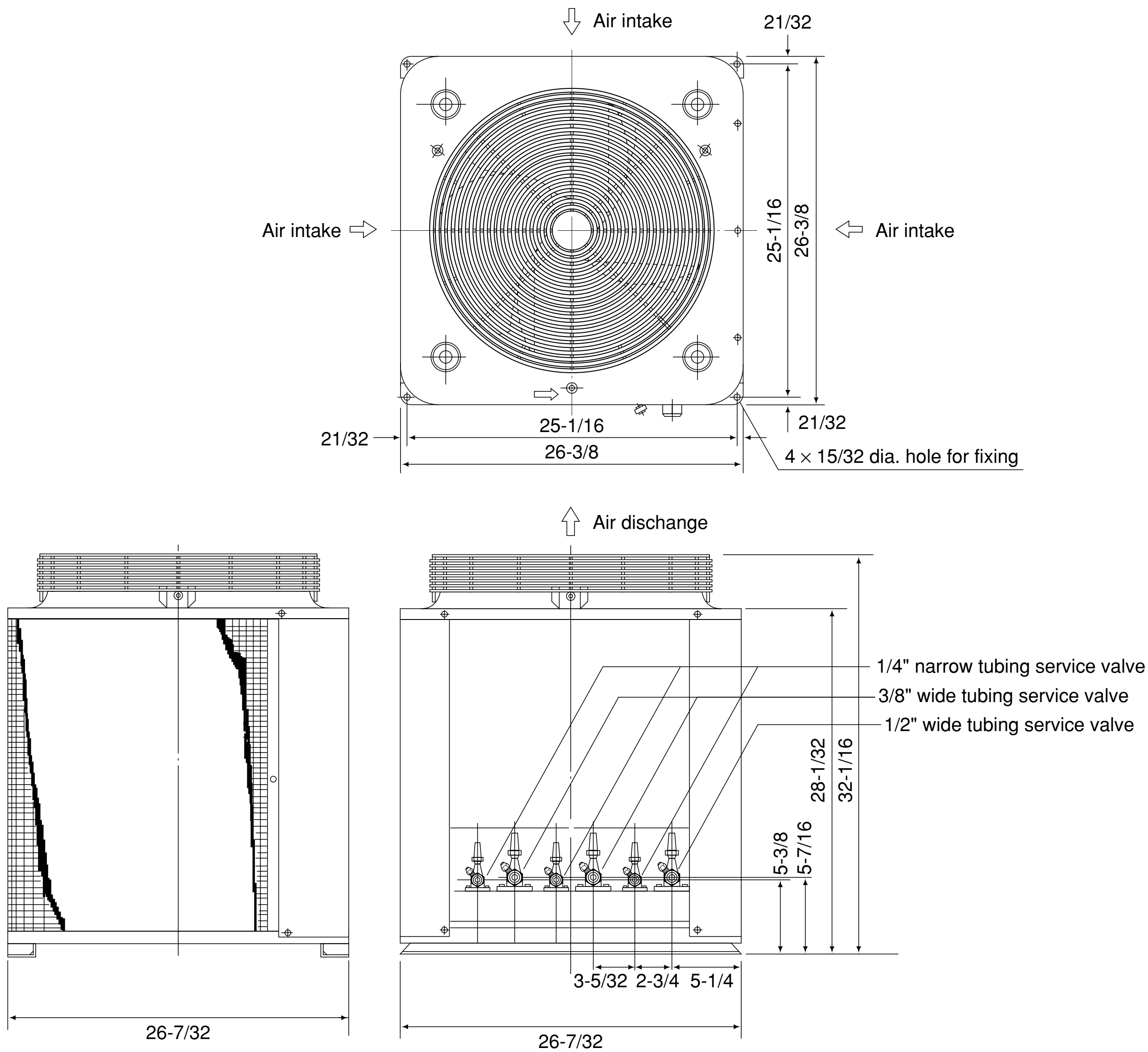
| | | | | |
|---|---|---|---|---|
| Model No. | | | | KMS1812 |
| Type | | | | Wall-mounted |
| Performance | | | | Cooling |
| | Capacity | | BTU/h | 18,000 / 17,600 |
| | | | kW | 5.27 / 5.16 |
| | Air circulation (High) | | cu. ft./min. | 440 / 420 |
| | Moisture removal (High) | | pints/h | 5.3 / 5.2 |
| Electrical Rating | Phase, Frequency | | Hz | Single, 60 |
| | Voltage rating | | V | 230 / 208 |
| | Available voltage range | | V | 187 to 253 |
| Features | Controls | | | Microprocessor |
| | Control unit | | | Wireless remote control unit |
| | Temperature control | | | IC thermostat |
| | Timer | | | ON/OFF 24-hours & Program |
| | Fan speeds | | | 3 |
| | Air deflector | | Horizontal / Vertical | Manual / Manual |
| | Air filter | | | Washable, easy access |
| | Operation sound | Hi / Me / Lo | dB-A | 47 / 44 / 40 |
| | Refrigerant tubing connections | | | Flare type |
| | Refrigerant tube o.d. | Narrow tube | in. (mm) | 1/4 (6.35) |
| | | Wide tube | in. (mm) | 1/2 (12.7) |
| | Refrigerant tube kit | | | Optional |
| | Accessories | | | Hanging wall bracket |
| Dimensions & Weight | Height | | in. (mm) | 14-3/16 (360) |
| | Width | | in. (mm) | 38-31/32 (990) |
| | Depth | | in. (mm) | 7-25/32 (198) |
| | Net weight | | lbs. (kg) | 30 (13.5) |
| | Shipping volume | | cu. ft. (cu. m) | 4.8 (0.136) |
| | Shipping weight | | lbs. (kg) | 37 (17) |

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

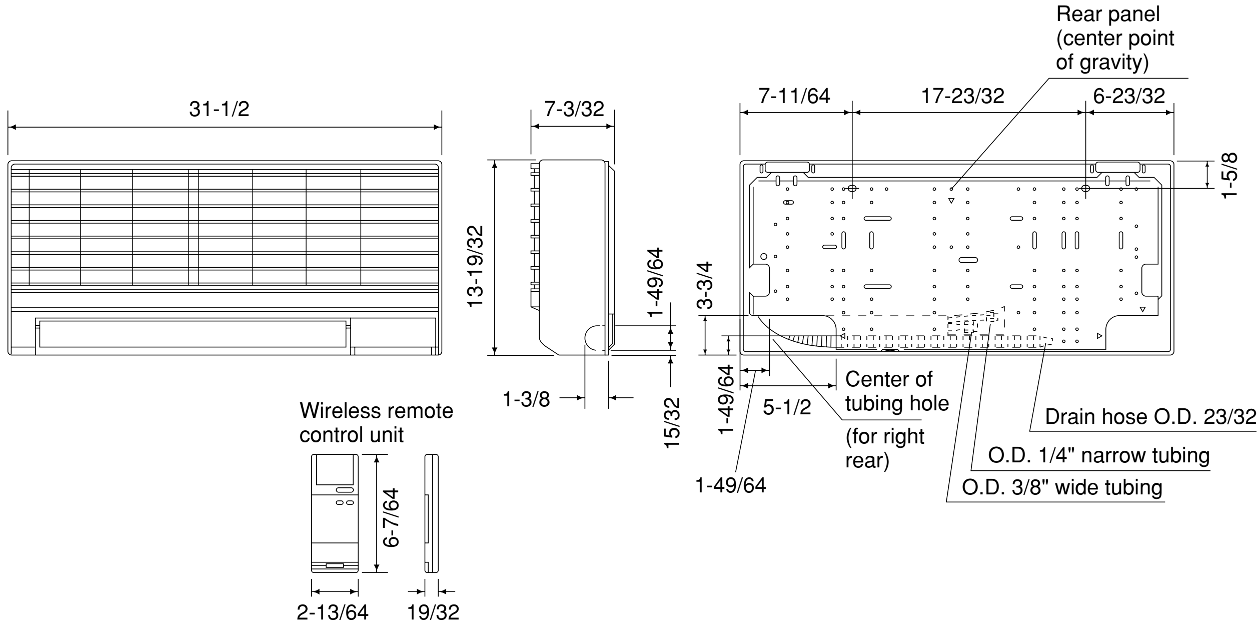
**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

# 3. DIMENSIONAL DATA

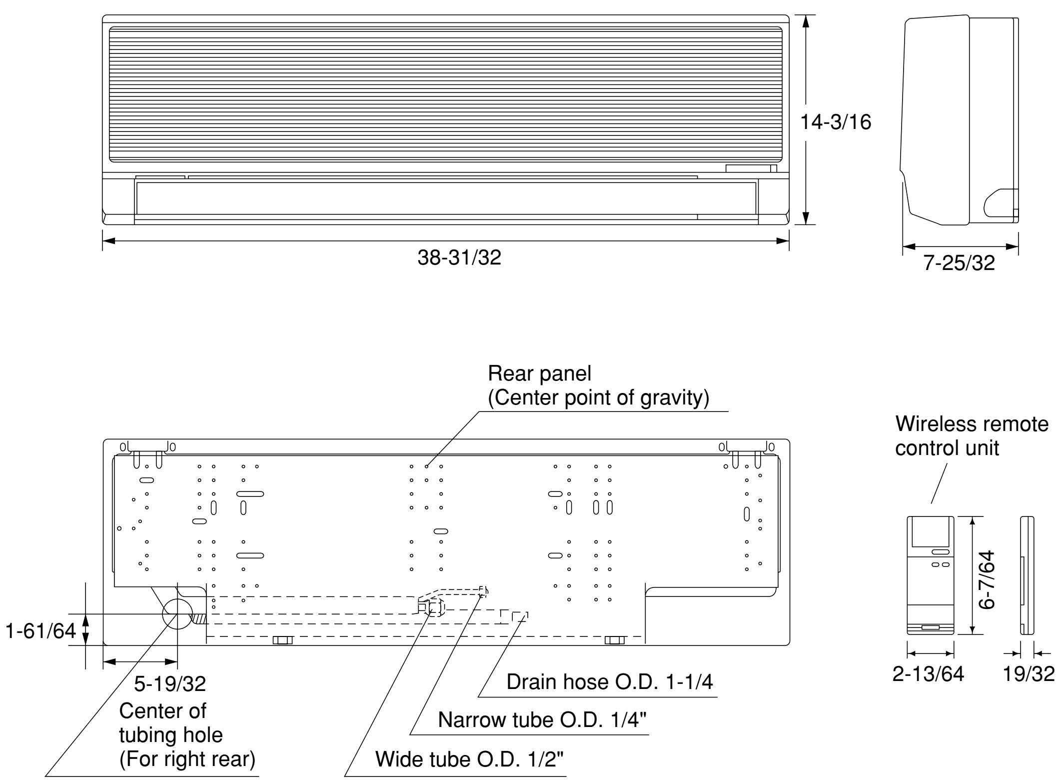
## Outdoor Unit: CM3212



## Indoor Unit: KMS0712




## Indoor Unit: KMS1812



# 4. COOLING CAPACITY

**230V**

**CM3622 / KMS0712×1**

| Rating Capacity: 7,000 BTU/H | | | Air Flow Rate: 220 CFM | | | | |
|---|---|---|---|---|---|---|---|
| **Evaporator** | | | **Condenser** | | | | |
| **Ent. Temp. °F/(°C)** | | | **Ambient Temp. °F/(°C)** | | | | |
| WB | DB | | 75 (23.9) | 85 (29.4) | 95 (35.0) | 105 (40.6) | 115 (46.1) |
| 59 (15.0) | | TC | 6,930 | 6,620 | 6,300 | 5,940 | 5,460 |
| | | kW | 0.48 | 0.52 | 0.57 | 0.61 | 0.67 |
| | 72 (22.2) | SHC | 5,290 | 5,130 | 4,980 | 4,810 | 4,590 |
| | 76 (24.4) | SHC | 6,030 | 5,880 | 5,730 | 5,560 | 5,330 |
| | 80 (26.7) | SHC | 6,810 | 6,620 | 6,300 | 5,940 | 5,460 |
| | 84 (28.9) | SHC | 6,930 | 6,620 | 6,300 | 5,940 | 5,460 |
| | 88 (31.1) | SHC | 6,930 | 6,620 | 6,300 | 5,940 | 5,460 |
| 63 (17.2) | | TC | 7,170 | 6,940 | 6,670 | 6,310 | 5,810 |
| | | kW | 0.48 | 0.53 | 0.57 | 0.62 | 0.69 |
| | 72 (22.2) | SHC | 4,390 | 4,290 | 4,170 | 4,010 | 3,800 |
| | 76 (24.4) | SHC | 5,130 | 5,030 | 4,910 | 4,750 | 4,540 |
| | 80 (26.7) | SHC | 5,910 | 5,810 | 5,690 | 5,530 | 5,320 |
| | 84 (28.9) | SHC | 6,650 | 6,550 | 6,430 | 6,270 | 5,810 |
| | 88 (31.1) | SHC | 7,170 | 6,940 | 6,670 | 6,310 | 5,810 |
| 67 (19.4) | | TC | 7,360 | 7,250 | *7,000 | 6,620 | 6,610 |
| | | kW | 0.48 | 0.53 | 0.58 | 0.63 | 0.70 |
| | 72 (22.2) | SHC | 3,470 | 3,420 | 3,320 | 3,170 | 2,990 |
| | 76 (24.4) | SHC | 4,210 | 4,160 | 4,060 | 3,910 | 3,730 |
| | 80 (26.7) | SHC | 4,990 | 4,940 | 4,840 | 4,680 | 4,510 |
| | 84 (28.9) | SHC | 5,730 | 5,680 | 5,580 | 5,430 | 5,250 |
| | 88 (31.1) | SHC | 6,470 | 6,420 | 6,320 | 6,170 | 5,990 |
| 71 (21.7) | | TC | 7,600 | 7,470 | 7,280 | 6,950 | 6,550 |
| | | kW | 0.49 | 0.54 | 0.59 | 0.65 | 0.72 |
| | 72 (22.2) | SHC | 2,520 | 2,470 | 2,400 | 2,280 | 2,140 |
| | 76 (24.4) | SHC | 3,260 | 3,210 | 3,140 | 3,020 | 2,880 |
| | 80 (26.7) | SHC | 4,040 | 3,990 | 3,920 | 3,800 | 3,660 |
| | 84 (28.9) | SHC | 4,780 | 4,730 | 4,660 | 4,540 | 4,400 |
| | 88 (31.1) | SHC | 5,520 | 5,480 | 5,410 | 5,290 | 5,140 |
| 75 (23.9) | | TC | 7,740 | 7,660 | 7,490 | 7,220 | 6,930 |
| | | kW | 0.50 | 0.55 | 0.60 | 0.66 | 0.73 |
| | 76 (24.4) | SHC | 2,320 | 2,290 | 2,240 | 2,150 | 2,050 |
| | 80 (26.7) | SHC | 3,100 | 3,070 | 3,010 | 2,920 | 2,830 |
| | 84 (28.9) | SHC | 3,840 | 3,810 | 3,750 | 3,670 | 3,570 |
| | 88 (31.1) | SHC | 4,580 | 4,550 | 4,500 | 4,410 | 4,310 |

TC: Total Cooling Capacity (BTU/H)
SHC: Sensible Heat Capacity (BTU/H)
kW: Compressor Input (kW)

**Remarks:** Rating conditions (* mark) are: Outside ambient temperature 95°F DB
Indoor unit entering air temperature 80°F DB/67°F WB

**208V**

**CM3622 / KMS0712×1**

| **Rating Capacity: 7,000 BTU/H** | | **Air Flow Rate: 210 CFM** | | | | | |
|---|---|---|---|---|---|---|---|
| **Evaporator** | | **Condenser** | | | | | |
| **Ent. Temp. °F/(°C)** | | **Ambient Temp. °F/(°C)** | | | | | |
| WB | DB | | 75 (23.9) | 85 (29.4) | 95 (35.0) | 105 (40.6) | 115 (46.1) |
| 59 (15.0) | | TC | 6,930 | 6,620 | 6,300 | 5,940 | 5,460 |
| | | kW | 0.47 | 0.51 | 0.56 | 0.60 | 0.66 |
| | 72 (22.2) | SHC | 5,220 | 5,070 | 4,920 | 4,750 | 4,520 |
| | 76 (24.4) | SHC | 5,940 | 5,780 | 5,630 | 5,460 | 5,240 |
| | 80 (26.7) | SHC | 6,690 | 6,530 | 6,300 | 5,940 | 5,460 |
| | 84 (28.9) | SHC | 6,930 | 6,620 | 6,300 | 5,940 | 5,460 |
| | 88 (31.1) | SHC | 6,930 | 6,620 | 6,300 | 5,940 | 5,460 |
| 63 (17.2) | | TC | 7,170 | 6,940 | 6,670 | 6,310 | 5,810 |
| | | kW | 0.47 | 0.52 | 0.56 | 0.61 | 0.68 |
| | 72 (22.2) | SHC | 4,360 | 4,250 | 4,130 | 3,970 | 3,760 |
| | 76 (24.4) | SHC | 5,070 | 4,970 | 4,850 | 4,690 | 4,470 |
| | 80 (26.7) | SHC | 5,820 | 5,720 | 5,590 | 5,430 | 5,220 |
| | 84 (28.9) | SHC | 6,530 | 6,430 | 6,310 | 6,150 | 5,810 |
| | 88 (31.1) | SHC | 7,170 | 6,940 | 6,670 | 6,310 | 5,810 |
| 67 (19.4) | | TC | 7,360 | 7,250 | *7,000 | 6,620 | 6,160 |
| | | kW | 0.48 | 0.52 | 0.57 | 0.62 | 0.69 |
| | 72 (22.2) | SHC | 3,460 | 3,410 | 3,310 | 3,160 | 2,970 |
| | 76 (24.4) | SHC | 4,170 | 4,130 | 4,030 | 3,870 | 3,690 |
| | 80 (26.7) | SHC | 4,920 | 4,870 | 4,770 | 4,620 | 4,400 |
| | 84 (28.9) | SHC | 5,640 | 5,590 | 5,490 | 5,330 | 5,150 |
| | 88 (31.1) | SHC | 6,350 | 6,300 | 6,200 | 6,050 | 5,860 |
| 71 (21.7) | | TC | 7,600 | 7,470 | 7,280 | 6,950 | 6,550 |
| | | kW | 0.48 | 0.53 | 0.58 | 0.64 | 0.70 |
| | 72 (22.2) | SHC | 2,540 | 2,490 | 2,420 | 2,300 | 2,150 |
| | 76 (24.4) | SHC | 3,250 | 3,210 | 3,140 | 3,020 | 2,870 |
| | 80 (26.7) | SHC | 4,000 | 3,950 | 3,880 | 3,760 | 3,620 |
| | 84 (28.9) | SHC | 4,720 | 4,670 | 4,600 | 4,480 | 4,330 |
| | 88 (31.1) | SHC | 5,430 | 5,380 | 5,310 | 5,190 | 5,040 |
| 75 (23.9) | | TC | 7,740 | 7,660 | 7,490 | 7,220 | 6,930 |
| | | kW | 0.49 | 0.54 | 0.59 | 0.65 | 0.72 |
| | 76 (24.4) | SHC | 2,340 | 2,310 | 2,260 | 2,170 | 2,070 |
| | 80 (26.7) | SHC | 3,090 | 3,060 | 3,000 | 2,910 | 2,820 |
| | 84 (28.9) | SHC | 3,800 | 3,770 | 3,720 | 3,630 | 3,530 |
| | 88 (31.1) | SHC | 4,520 | 4,490 | 4,430 | 4,340 | 4,250 |

TC: Total Cooling Capacity (BTU/H)
SHC: Sensible Heat Capacity (BTU/H)
kW: Compressor Input (kW)

**Remarks:** Rating conditions (* mark) are: Outside ambient temperature 95°F DB
Indoor unit entering air temperature 80°F DB/67°F WB

**230V**

**CM3622 / KMS1812**

| **Rating Capacity: 18,000 BTU/H** | | **Air Flow Rate: 440 CFM** | | | | | |
|---|---|---|---|---|---|---|---|
| **Evaporator** | | **Condenser** | | | | | |
| **Ent. Temp. °F/(°C)** | | **Ambient Temp. °F/(°C)** | | | | | |
| WB | DB | | 75 (23.9) | 85 (29.4) | 95 (35.0) | 105 (40.6) | 115 (46.1) |
| 59 (15.0) | | TC | 17,820 | 17,010 | 16,200 | 15,280 | 14,040 |
| | | kW | 1.30 | 1.41 | 1.54 | 1.67 | 1.83 |
| | 72 (22.2) | SHC | 12,350 | 11,900 | 11,460 | 10,970 | 10,340 |
| | 76 (24.4) | SHC | 13,720 | 13,270 | 12,830 | 12,350 | 11,710 |
| | 80 (26.7) | SHC | 15,150 | 14,700 | 14,260 | 13,780 | 13,140 |
| | 84 (28.9) | SHC | 16,520 | 16,070 | 15,630 | 15,150 | 14,040 |
| | 88 (31.1) | SHC | 17,820 | 17,010 | 16,200 | 15,280 | 14,040 |
| 63 (17.2) | | TC | 18,430 | 17,860 | 17,150 | 16,220 | 14,940 |
| | | kW | 1.31 | 1.43 | 1.56 | 1.70 | 1.87 |
| | 72 (22.2) | SHC | 10,550 | 10,260 | 9,910 | 9,450 | 8,840 |
| | 76 (24.4) | SHC | 11,920 | 11,630 | 11,280 | 10,820 | 10,210 |
| | 80 (26.7) | SHC | 13,350 | 13,060 | 12,710 | 12,250 | 11,640 |
| | 84 (28.9) | SHC | 14,720 | 14,430 | 14,080 | 13,620 | 13,010 |
| | 88 (31.1) | SHC | 16,090 | 15,800 | 15,450 | 14,990 | 14,380 |
| 67 (19.4) | | TC | 18,940 | 18,630 | *18,000 | 17,010 | 15,840 |
| | | kW | 1.32 | 1.45 | 1.58 | 1.72 | 1.91 |
| | 72 (22.2) | SHC | 8,680 | 8,540 | 8,250 | 7,800 | 7,290 |
| | 76 (24.4) | SHC | 10,050 | 9,910 | 9,620 | 9,180 | 8,660 |
| | 80 (26.7) | SHC | 11,480 | 11,340 | 11,050 | 10,610 | 10,100 |
| | 84 (28.9) | SHC | 12,850 | 12,710 | 12,420 | 11,980 | 11,470 |
| | 88 (31.1) | SHC | 14,220 | 14,080 | 13,790 | 13,350 | 12,840 |
| 71 (21.7) | | TC | 19,530 | 19,210 | 18,720 | 17,870 | 16,830 |
| | | kW | 1.33 | 1.46 | 1.60 | 1.77 | 1.95 |
| | 72 (22.2) | SHC | 6,760 | 6,630 | 6,430 | 6,080 | 5,660 |
| | 76 (24.4) | SHC | 8,130 | 8,000 | 7,800 | 7,450 | 7,040 |
| | 80 (26.7) | SHC | 9,570 | 9,430 | 9,230 | 8,880 | 8,470 |
| | 84 (28.9) | SHC | 10,940 | 10,800 | 10,600 | 10,260 | 9,840 |
| | 88 (31.1) | SHC | 12,310 | 12,170 | 11,970 | 11,630 | 11,210 |
| 75 (23.9) | | TC | 19,910 | 19,690 | 19,260 | 18,580 | 17,820 |
| | | kW | 1.36 | 1.49 | 1.63 | 1.81 | 2.00 |
| | 76 (24.4) | SHC | 6,210 | 6,130 | 5,970 | 5,720 | 5,440 |
| | 80 (26.7) | SHC | 7,640 | 7,560 | 7,400 | 7,150 | 6,880 |
| | 84 (28.9) | SHC | 9,010 | 8,930 | 8,770 | 8,520 | 8,250 |
| | 88 (31.1) | SHC | 10,390 | 10,300 | 10,140 | 9,890 | 9,620 |

TC: Total Cooling Capacity (BTU/H)
SHC: Sensible Heat Capacity (BTU/H)
kW: Compressor Input (kW)

**Remarks:** Rating conditions (* mark) are: Outside ambient temperature 95°F DB
Indoor unit entering air temperature 80°F DB/67°F WB

**208V**

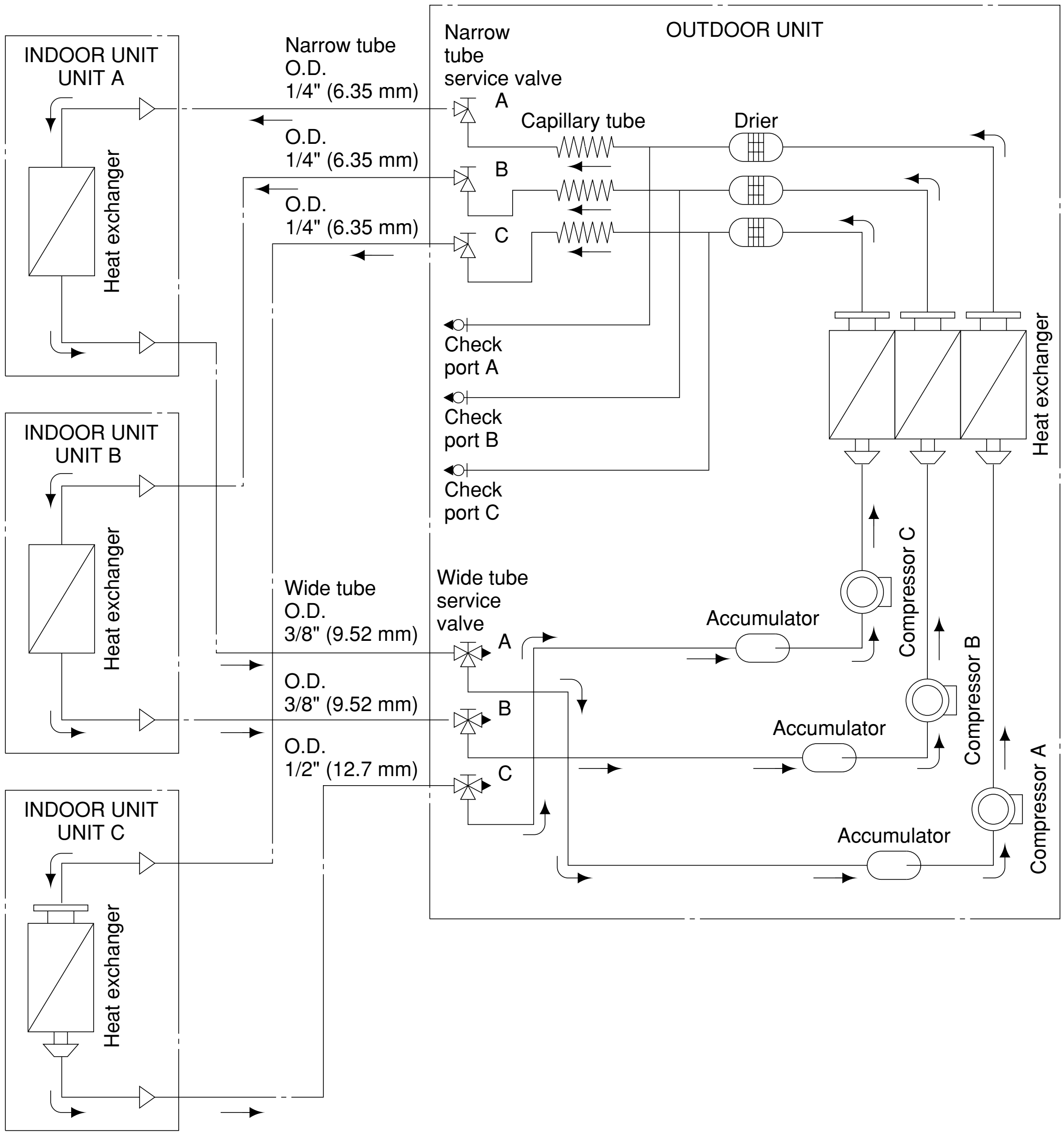
**CM3622 / KMS1812**

| Rating Capacity: 17,600 BTU/H | | | Air Flow Rate: 420 CFM | | | | |
|---|---|---|---|---|---|---|---|
| **Evaporator** | | **Condenser** | | | | | |
| **Ent. Temp. °F/(°C)** | | **Ambient Temp. °F/(°C)** | | | | | |
| WB | DB | | 75 (23.9) | 85 (29.4) | 95 (35.0) | 105 (40.6) | 115 (46.1) |
| 59 (15.0) | | TC | 17,420 | 16,630 | 15,840 | 14,940 | 13,730 |
| | | kW | 1.30 | 1.41 | 1.54 | 1.67 | 1.83 |
| | 72 (22.2) | SHC | 10,040 | 9,520 | 9,030 | 8,470 | 7,750 |
| | 76 (24.4) | SHC | 11,360 | 10,850 | 10,350 | 9,790 | 9,070 |
| | 80 (26.7) | SHC | 12,740 | 12,230 | 11,730 | 11,170 | 10,450 |
| | 84 (28.9) | SHC | 14,060 | 13,550 | 13,050 | 12,490 | 11,770 |
| | 88 (31.1) | SHC | 15,380 | 14,870 | 14,370 | 13,820 | 13,090 |
| 63 (17.2) | | TC | 18,020 | 17,460 | 16,770 | 15,860 | 14,610 |
| | | kW | 1.31 | 1.43 | 1.56 | 1.70 | 1.87 |
| | 72 (22.2) | SHC | 8,030 | 7,690 | 7,300 | 6,780 | 6,090 |
| | 76 (24.4) | SHC | 9,350 | 9,020 | 8,620 | 8,100 | 7,410 |
| | 80 (26.7) | SHC | 10,730 | 10,400 | 10,000 | 9,480 | 8,790 |
| | 84 (28.9) | SHC | 12,050 | 11,720 | 11,320 | 10,800 | 10,110 |
| | 88 (31.1) | SHC | 13,370 | 13,040 | 12,640 | 12,120 | 11,430 |
| 67 (19.4) | | TC | 18,520 | 18,220 | *17,600 | 16,630 | 15,490 |
| | | kW | 1.32 | 1.45 | 1.58 | 1.72 | 1.91 |
| | 72 (22.2) | SHC | 5,950 | 5,790 | 5,460 | 4,970 | 4,390 |
| | 76 (24.4) | SHC | 7,270 | 7,110 | 6,790 | 6,290 | 5,710 |
| | 80 (26.7) | SHC | 8,650 | 8,490 | 8,170 | 7,670 | 7,090 |
| | 84 (28.9) | SHC | 9,970 | 9,810 | 9,490 | 8,990 | 8,410 |
| | 88 (31.1) | SHC | 11,290 | 11,130 | 10,810 | 10,310 | 9,730 |
| 71 (21.7) | | TC | 19,100 | 18,780 | 18,300 | 17,480 | 16,460 |
| | | kW | 1.33 | 1.46 | 1.60 | 1.77 | 1.95 |
| | 72 (22.2) | SHC | 3,830 | 3,680 | 3,460 | 3,070 | 2,610 |
| | 76 (24.4) | SHC | 5,160 | 5,000 | 4,780 | 4,390 | 3,930 |
| | 80 (26.7) | SHC | 6,540 | 6,380 | 6,160 | 5,770 | 5,310 |
| | 84 (28.9) | SHC | 7,860 | 7,700 | 7,480 | 7,090 | 6,630 |
| | 88 (31.1) | SHC | 9,180 | 9,030 | 8,800 | 8,410 | 7,950 |
| 75 (23.9) | | TC | 19,470 | 19,250 | 18,830 | 18,160 | 17,420 |
| | | kW | 1.36 | 1.49 | 1.63 | 1.81 | 2.00 |
| | 76 (24.4) | SHC | 3,050 | 2,960 | 2,780 | 2,500 | 2,200 |
| | 80 (26.7) | SHC | 4,430 | 4,340 | 4,160 | 3,880 | 3,580 |
| | 84 (28.9) | SHC | 5,750 | 5,660 | 5,480 | 5,200 | 4,900 |
| | 88 (31.1) | SHC | 7,070 | 6,980 | 6,800 | 6,520 | 6,220 |

TC: Total Cooling Capacity (BTU/H)
SHC: Sensible Heat Capacity (BTU/H)
kW: Compressor Input (kW)

**Remarks:** Rating conditions (* mark) are: Outside ambient temperature 95°F DB
Indoor unit entering air temperature 80°F DB/67°F WB

# 5. REFRIGERANT FLOW DIAGRAM



# 6. ELECTRICAL DATA

● **Electrical Characteristics**

**CM3212 / KMS0712×1**

| Performance at 230/208V – 1ø – 60Hz | | Indoor Unit | Outdoor Unit | | Complete Unit |
|---|---|---|---|---|---|
| | | Fan Motor | Fan Motor | Compressor | |
| Rating Conditions | A | 0.15 / 0.14 | 0.62 / 0.56 | 2.53 / 2.80 | 3.3 / 3.5 |
| | W | 34 / 28 | 140 / 126 | 576 / 566 | 750 / 720 |
| Locked-Rotor Amperes | A | 0.19 / 0.18 | 1.95 / 1.77 | 22 | — |

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

**CM3212 / KMS1812×1**

| Performance at 230/208V – 1ø – 60Hz | | Indoor Unit | Outdoor Unit | | Complete Unit |
|---|---|---|---|---|---|
| | | Fan Motor | Fan Motor | Compressor | |
| Rating Conditions | A | 0.4 / 0.4 | 1.45 / 1.42 | 7.05 / 7.68 | 8.9 / 9.5 |
| | W | 90 / 80 | 330 / 290 | 1,580 / 1,580 | 2,000 / 1,950 |
| Locked-Rotor Amperes | A | 0.45 / 0.40 | 1.95 / 1.77 | 54 | — |

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

**CM3212 / KMS7012×2**

| Performance at 230/208V – 1ø – 60Hz | | Indoor Units | Outdoor Unit | | Complete Unit |
|---|---|---|---|---|---|
| | | Fan Motor | Fan Motor | Compressor | |
| Rating Conditions | A | 0.30 / 0.28 | 1.45 / 1.42 | 4.95 / 5.5 | 6.7 / 7.2 |
| | W | 68 / 56 | 330 / 290 | 1,142 / 1,144 | 1,540 / 1,490 |
| Locked-Rotor Amperes | A | (0.19 / 0.18) × 2 | 1.95 / 1.77 | 22 × 2 | — |

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

**CM3212 / KMS0712+KMS1812**

| Performance at 230/208V – 1ø – 60Hz | | Indoor Units | Outdoor Unit | | Complete Unit |
|---|---|---|---|---|---|
| | | | Fan Motor | Compressor | |
| Rating Conditions | A | 0.55 / 0.54 | 1.45 / 1.42 | 9.80 / 10.64 | 11.8 / 12.6 |
| | W | 124 / 108 | 330 / 290 | 2,246 / 2,202 | 2,700 / 2,600 |
| Locked-Rotor Amperes | A | 0.19 + 0.45 / 0.18 + 0.40 | 1.95 / 1.77 | 22 + 54 | — |

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

**CM3212 / KMS7012×2+KMS1812**

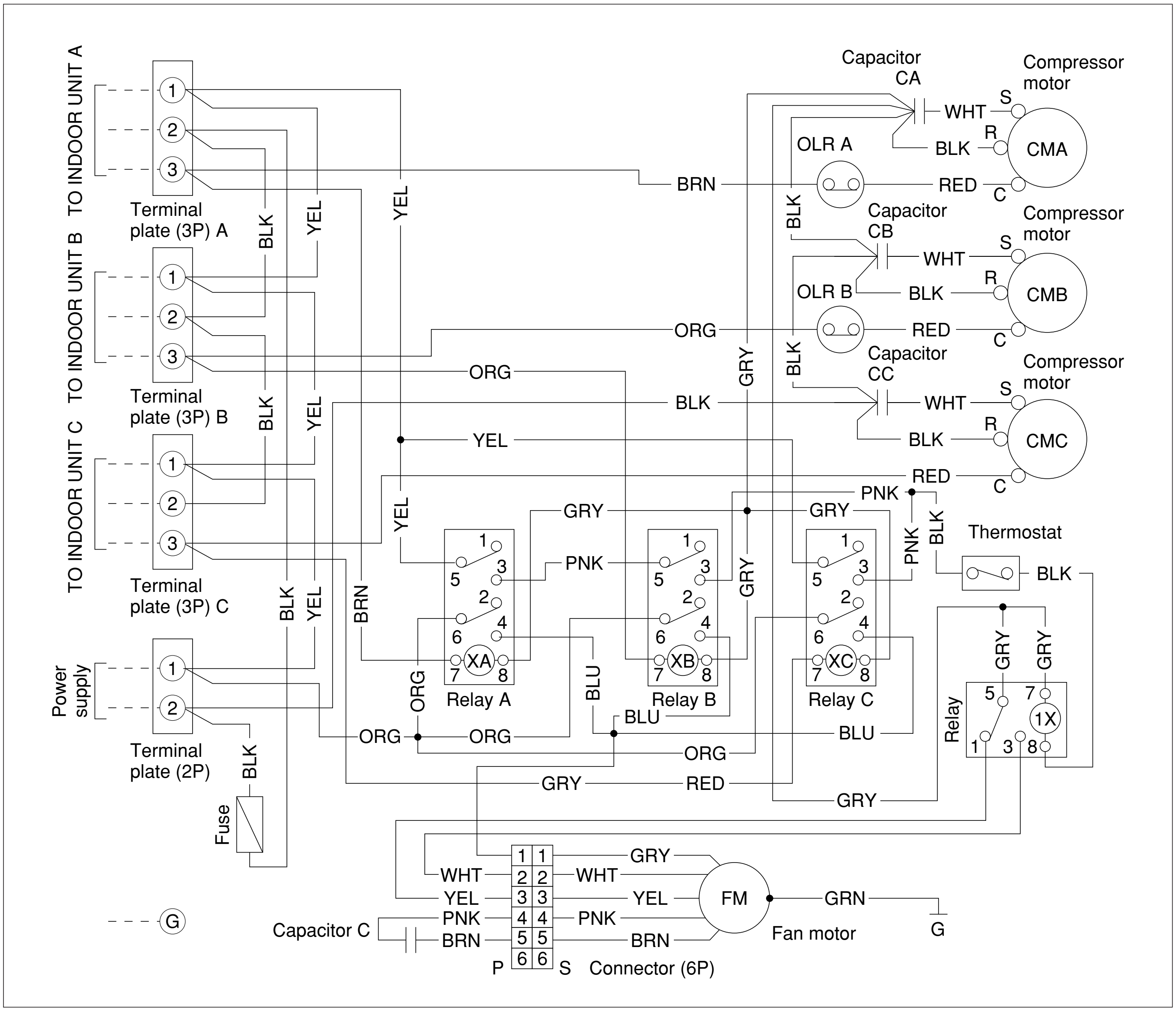
| Performance at 230/208V – 1ø – 60Hz | | Indoor Units | Outdoor Unit | | Complete Unit |
|---|---|---|---|---|---|
| | | | Fan Motor | Compressor | |
| Rating Conditions | A | 0.70 / 0.68 | 1.45 / 1.42 | 12.85 / 13.90 | 15.0 / 16.0 |
| | W | 158 / 136 | 330 / 290 | 2,912 / 2,874 | 3,400 / 3,300 |
| Locked-Rotor Amperes | A | 0.19 + 0.19 + 0.45 / 0.18 + 0.18 + 0.40 | 1.95 / 1.77 | 22 + 22 + 54 | — |

**Remarks:** Rating conditions are: Outside air temperature 95°F DB/75°F WB
Indoor unit entering air temperature 80°F DB/67°F WB

## ● Electrical Wiring Diagram

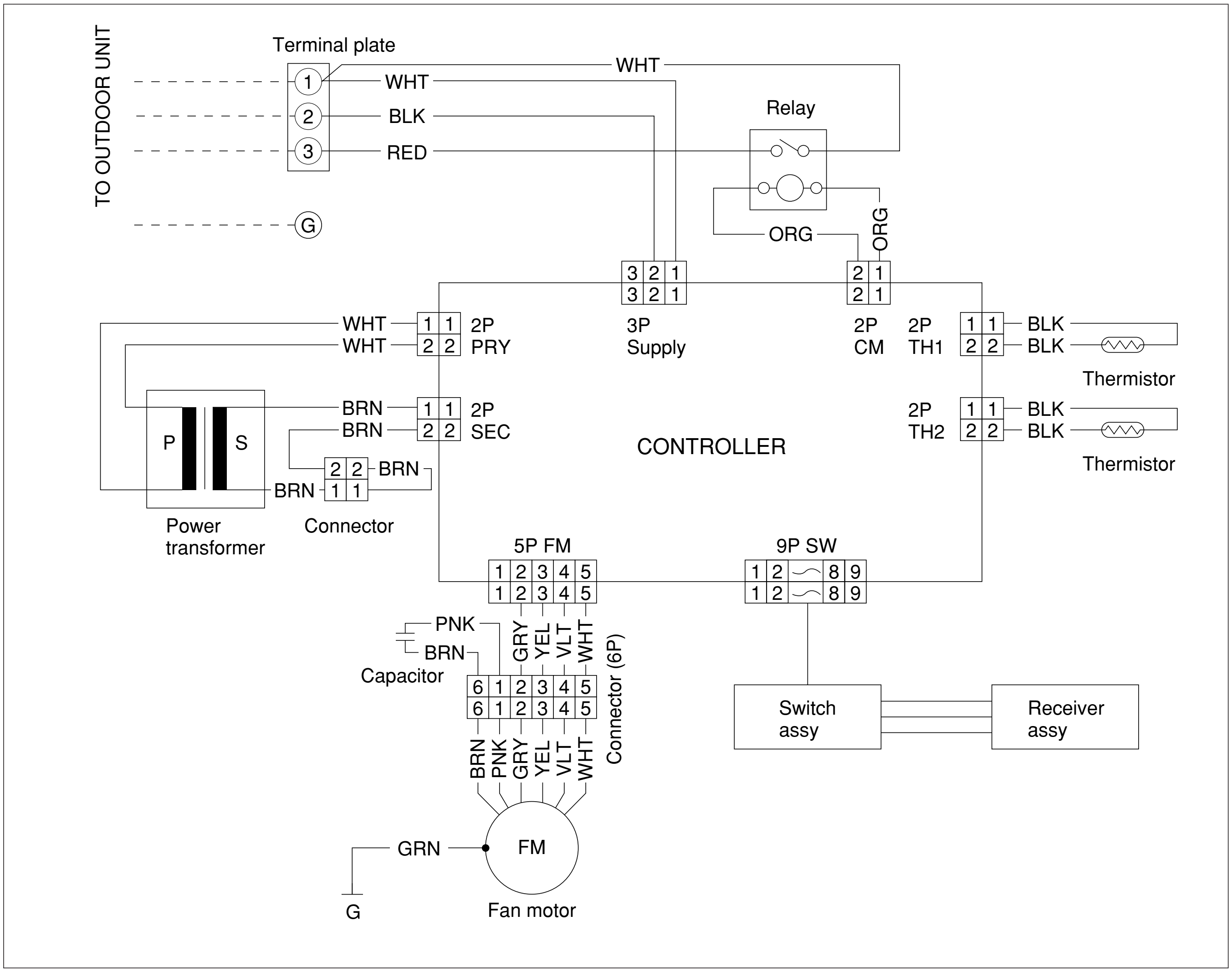
**Outdoor Unit: CM3212**

**WARNING:** ***To avoid electrical shock hazard, be sure to disconnect power before checking, servicing and/or cleaning any electrical parts.***



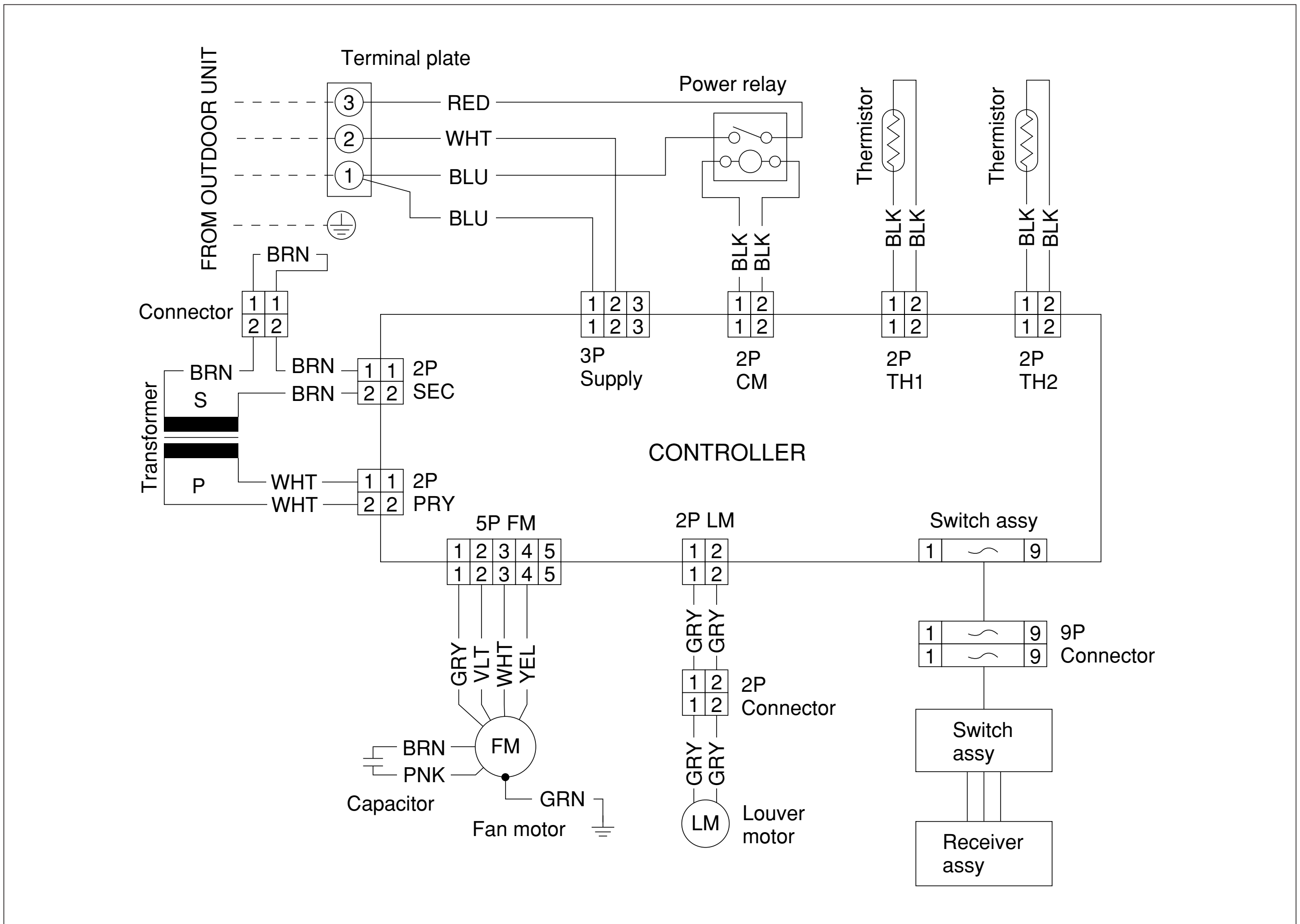
**Indoor Unit: KMS0712**

**WARNING:** ***To avoid electrical shock hazard, be sure to disconnect power before checking, servicing and/or cleaning any electrical parts.***



**Indoor Unit: KMS1812**

**WARNING:** ***To avoid electrical shock hazard, be sure to disconnect power before checking, servicing and/or cleaning any electrical parts.***



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**WM−700699**